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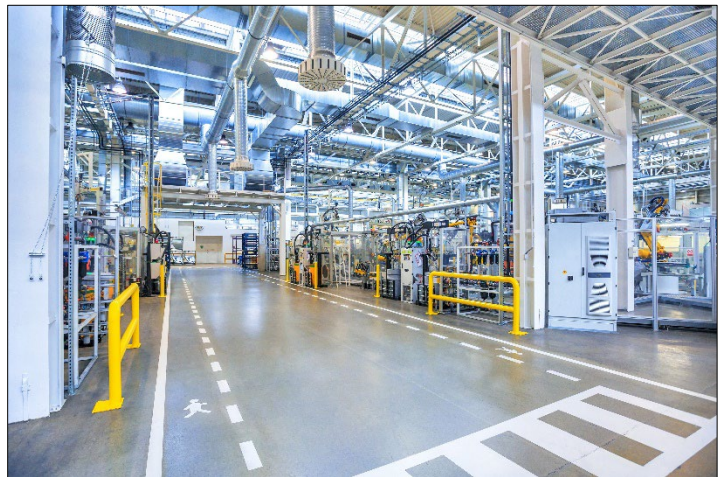


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PRESS RELEASE



Time to Shutter the Plant? Cut Losses with Cost-Effective Preservation

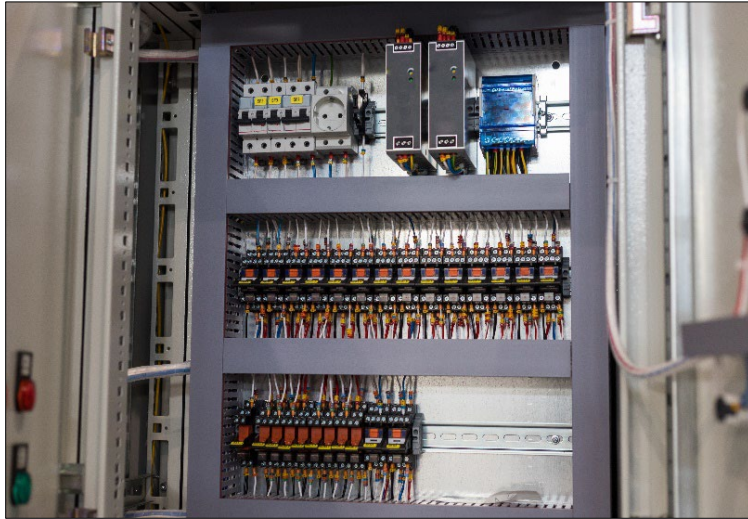
High operating costs, rising inflation, aging plants that need capital investment, or simply corporate restructuring: these are all reasons business leaders choose to shut down aging mills or plants that have become regional icons. Whatever the rationale and public response, plant owners are still left with the question of how to minimize losses by preserving asset value for resale and future use. One of their most unrelenting enemies is corrosion, which threatens to consume more and more value the longer the plant remains idle. Cortec® corrosion solutions are here to provide practical and cost-effective answers to these asset preservation challenges.



The VpCI® Game Changer

Vapor phase Corrosion Inhibitor Technology, which constitutes a large percentage of Cortec® VpCI® Technology, is a game-changing preservation option because it allows for clean, dry protection of everything from the smallest

nuts and bolts to the largest boilers. The technology takes on many shapes—packaging material, fogging fluid, water treatment, etc.—all with the idea of protecting enclosed spaces via corrosion inhibitors that vaporize, fill the enclosure, and form a protective molecular layer on metal surfaces. This allows for more thorough protection of difficult to reach spaces. Vapor phase Corrosion Inhibitors are often supplemented with Cortec® VpCI® contact corrosion inhibitors, such as coatings or liquid rust preventatives designed to leave a physical barrier on metal surfaces that are not enclosed. Some practical preservation examples follow.



Protecting Electricals and Electronics

Every facility has circuit breaker boxes, control panels, and other equipment electrical enclosures that contain metal contacts vulnerable to corrosion. Those located in harsh environments such as pulp and paper mills may have already started the downhill trend toward corrosion by the time the preservation team comes in. Placing a [VpCI®-105](#) or [111 Emitter](#) inside helps slow down the corrosion reaction by conditioning the compartment with

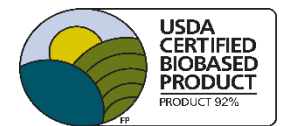
Vapor phase Corrosion Inhibitors. Protection can be supplemented by spraying [ElectriCorr™ VpCI®-238](#) or [239](#) on PCBs or other electronics surfaces inside ventilated cabinets. If needed, the exterior of the cabinets can be wrapped in [VpCI®-126 Shrink Film](#) for added protection.

Preserving High-Dollar Industry-Specific Assets

Specialty equipment such as turbines, paper machine rolls, or other large industry-specific assets can be preserved in a similar manner. However, a critical first step is making sure components are clean before applying preservation. Sometimes, this involves rust removal with [VpCI®-422](#) (liquid) or [VpCI®-423](#) (gel), two USDA Certified Biobased Products. This is followed by cleaning and neutralization with an alkaline cleaner, such as those in the VpCI®-41x Series with flash rust inhibitors. Once this is done, workers can fog internal voids and flow paths with [CorroLogic® VpCI®-339 Fogging Fluid](#) and finish the package by heat shrinking VpCI® Film around the equipment. Depending on where the asset will be stored, preservation workers can choose from different grades of durability, ranging from VpCI®-126 Shrink Film for indoor protection to [VpCI®-126 HP UV Shrink Film](#) and [MilCorr® VpCI® Shrink Film](#) for outdoor, long-term storage.



VpCI® 423



VpCI® 422



Heating and Cooling System Layout

Boilers, cooling loops, and associated piping are more vulnerable to corrosion when they are offline and the normal water treatment chemicals are not running through them. However, dry boiler internals are easy to preserve with Vapor phase Corrosion Inhibitors by placing a [Boiler Lizard®](#) inside standard-sized boilers or fogging the [Boiler Dragon™](#) inside large boilers such as HRSGs. No product removal is typically required at startup, so asset buyers can

look forward to easy recommissioning with fewer leaking or clogging problems due to corrosion. On the cooling side, [VpCI®-649](#) is one example of a dual contact/ Vapor phase Corrosion Inhibitor that can be used for either wet or dry layout of closed loop systems.

Storage of Pumps, Valves, Lubrication Systems, Nuts, and Bolts

Pumps, valves, and lubrication systems are other common components found in almost any plant. Pumps and valves can be fogged internally with CorroLogic® VpCI®-339 or hydrotested with VpCI®-649, coated with [VpCI®-391](#) removable coating on flange faces, and shrink wrapped with VpCI®-126 HP UV Shrink Film or MilCorr® VpCI® Shrink Film for final protection. [M-535](#) is helpful for laying up



lubrication systems and gearboxes (compatibility should always be verified first) and [CorrLube™ VpCI® Lithium EP Grease](#) is great for packing any areas that use NLGI Grade 2 grease and may be used intermittently. Individual bearings, nuts, bolts, and other small items can be wrapped in [CorShield® VpCI®-146 Paper](#) and/or placed inside [VpCI®-126 Bags](#).

Minimize Losses with Cost-Effective Preservation

The examples above are just a snapshot of the full preservation potential for Vapor phase Corrosion Inhibitor Technology. When viewed as a whole, the cost of preservation is a small fraction of the asset value that might otherwise be lost by the time a buyer is found. If you are in the process of selling or shuttering your plant, be sure to [contact Cortec® for practical preservation options to cut your losses](#).

Keywords: plant shutdown, cost effective preservation, how to cut losses on plant shutdowns, paper mill shutdowns, Cortec, corrosion inhibitors, how to get the most value out of your equipment sale, preserving turbines, mothballing paper mills, how to protect electronics from corrosion

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